

Wind and Solar Curtailment May 28, 2019

This report is produced daily to provide a detailed accounting of the wind and solar renewable generation that was curtailed and the reasons why¹. This report should be read in the context of the Renewables Watch report for a more complete understanding of both renewable curtailment and generation².

Wind and solar curtailments are grouped into the following categories:

- 1. Economic Local: Market dispatch of generators with economic bids to mitigate local congestion³.
- 2. Economic System: Market dispatch of generators with economic bids to mitigate systemwide oversupply.
- 3. SelfSchCut Local: Market dispatch of self-schedules to mitigate local congestion.
- 4. SelfSchCut System: Market dispatch of self-schedules to mitigate system-wide oversupply.
- 5. ExDispatch Local: Exceptional dispatch to mitigate local congestion.
- 6. ExDispatch System: Exceptional dispatch to mitigate system-wide oversupply.

Note: Amounts smaller than 1 MW are filtered out for simplicity. Such small curtailments are occasionally observed when forecasts are lower than Pmin when market will de-commit the unit and send the 0 MW dispatch.

¹Only wind and solar resources can be reported in this manner because these resources have a forecast. Curtailment is defined as the difference between actual production and the forecast when actual production is less than the forecast.

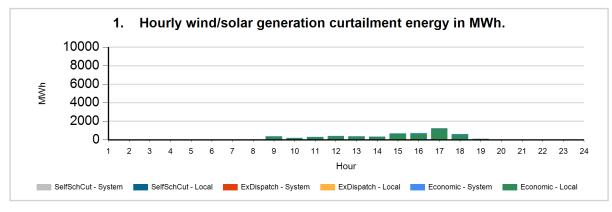
²The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: <u>http://www.caiso.com/green/renewableswatch.html</u>.

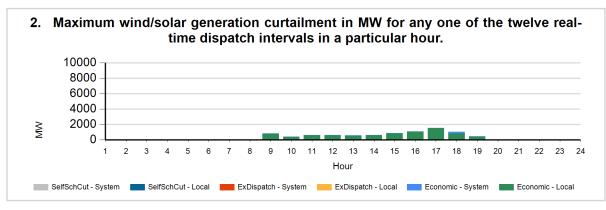
³Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

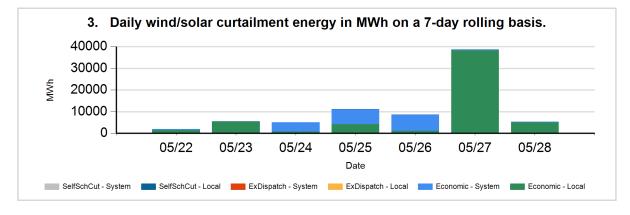
For more information on oversupply conditions, please see: <u>https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf</u>

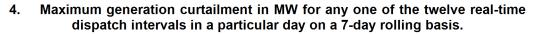


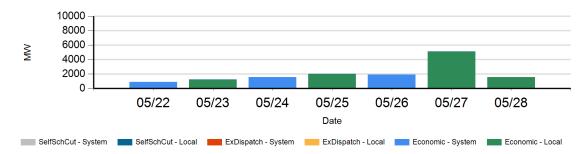
The following charts show the daily and 7-day rolling wind and solar curtailment by category, if any.





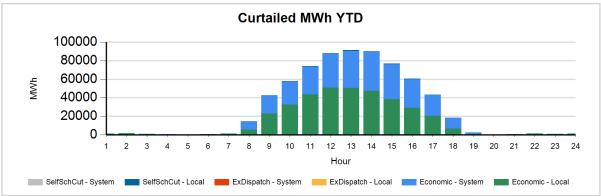




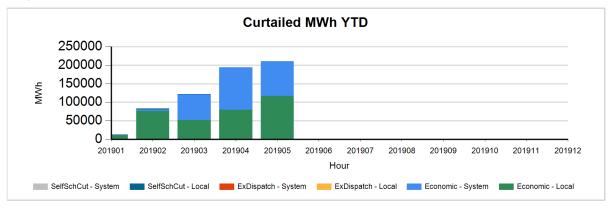




The following charts show hourly year to date wind and solar curtailment by category, if any.



The following charts show monthly year to date wind and solar curtailment by category, if any.



TYPE	YTD CURTAILED MWH
LocalEconomic	335,313
LocalSelfSchCut	5,698
SystemEconomic	280,905
TOTAL	621,916



Data used to produce hourly chart

RTAILED MW	CURTAILED MWH	FUEL TYPE	REASON	CURT TYPE	HOU R	DATE
2	5	SOLR	System	Economic	8	05/28
80	349	SOLR	Local	Economic	9	05/28
	9	WIND	Local	Economic	9	05/28
	3	SOLR	System	Economic	9	05/28
41	170	SOLR	Local	Economic	10	05/28
	15	SOLR	System	Economic	10	05/28
59	285	SOLR	Local	Economic	11	05/28
	6	WIND	Local	Economic	11	05/28
2	23	SOLR	System	Economic	11	05/28
60	385	SOLR	Local	Economic	12	05/28
2	40	SOLR	System	Economic	12	05/28
57	342	SOLR	Local	Economic	13	05/28
	32	SOLR	System	Economic	13	05/28
60	315	SOLR	Local	Economic	14	05/28
	10	SOLR	System	Economic	14	05/28
81	642	SOLR	Local	Economic	15	05/28
	11	WIND	Local	Economic	15	05/28
Ę	41	SOLR	System	Economic	15	05/28
105	592	SOLR	Local	Economic	16	05/28
	13	WIND	Local	Economic	16	05/28
15	1202	SOLR	Local	Economic	17	05/28
	12	WIND	Local	Economic	17	05/28
8′	538	SOLR	Local	Economic	18	05/28
	4	WIND	Local	Economic	18	05/28
19	76	SOLR	System	Economic	18	05/28
	6	WIND	System	Economic	18	05/28
43	88	SOLR	Local	Economic	19	05/28
2	5	WIND	Local	Economic	19	05/28
	0	SOLR	System	Economic	19	05/28

The information contained in this report is preliminary and subject to change without notice. No inference, decision or conclusion should be made based on the information in this report or any series of these reports. All values are hourly average unless otherwise stated. Questions about this report should be directed to Short-Term Forecasting at ShortTermForecasting@caiso.com.

